Improving double-usage (ornamental and fruiting) strawberry (Fragaria x ananassa Duch.) in Western Siberia

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The next stage of the project will focus on evaluating a subset of promising seedling populations in terms of disease resistance and berry quality attributes. Molecular characterisation of the genetic control of flowering will also continue. The strawberry project will hopefully contribute to making the Finnish strawberry growing more economically feasible and provide growers with know-how and well-tested everbearing strawberry cultivars.

[1] Food and Agricultural Organisation of the United Nations. 2009. Production statistics. Available at www.faostat.fao.org/ (Accessed May 2009).

[2] Finnish Meteorology Institute. 2009. Climate in Finland. Available at www.fmi.fi/weather/climate.html (Accessed May 2009)

[3] Sargent DJ, Cipriani G, Vilanova S, Gil-Ariza D, Arús P, Simpson DW, Tobutt KR & Monfort A. 2008. The development of a bin mapping population and the selective mapping of 103 markers in the diploid Fragaria reference map. Genome 51:120-127.

Improving double-usage (ornamental and fruiting) strawberry (*Fragaria x ananassa* Duch.) in Western Siberia

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Breeding ornamental strawberries with acceptable fruit productivity presents some difficulties since a number of undesirable attributes such as small and nubbin fruits, insufficient seed set, bad fruit flavor and low percentage of fruit setting are often connected with pink color [1]. Research regarding the development of effective crossing patterns involving pink-flowering parents is being carried out in the Research Institute of Cytology and Genetics SB RAS in order to obtain high-yielding hybrids for double (ornamental and nutritive) usage. This research is focused on comparative evaluation of pink-flowering hybrids for the asset of economically-valuable traits and identification of the nature of the inheriting characters "corolla pink color" and "everbearing capacity" in conditions of Western Siberia. Two donors of pink-colored flower trait, variety 'Pink Panda'(derived from intergeneric *Fragaria x Potentilla* cross-pollination [2]) and hybrid F_1 C141, were involved in crossings with large-fruited

everbearing winter-hardy hybrids of the Laboratory of Plant Population Genetics of Research Institute Cytology and Genetics SB RAS. Large population (more than 800 plants) was raised from the seeds; most of the plants were ranked for the set of characters (flower color, fruit productivity and quality, etc.). A wide range of variability on color intensity, fruit size, winter hardiness and disease resistance allows the selection of plants with desirable combinations of useful traits. The primary selection regarding both fruit quality and ornamental characteristics was conducted and pink-flowering strawberry germplasm bank was established in the period of 2007 - 2008.

[1] Khanizadeh, S., J. Cousineau, M. Deschknes, A. Levasseur, O. Carisse (2002). Roseberry and Rosalyne: two new hardy, day-neutral red flowering strawberry cultivars. *Acta Hort.* 1(567):173-174.

[2] Mabberley D. J. (2002) *Potentilla* and *Fragoria* (Rosaceae) reunited. *Telopea* 9(4): 793–801.

Characterization by Mass Spectrometry Techniques of Peptide Hydrolyzates Obtained from the Recovery of Poultry Left-Overs

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"PROgress in Saving Proteins And Recovering Energy" (PROSPARE) is an european project launched within the 7th Framework Programme, in the theme Food, Agriculture and Fisheries, Biotechnology. This small collaborative project, performed by a consortium formed by four european and four russian partners, led by the University of Parma, in Italy, addresses the problem of the leftovers of the meat industry. In particular, unmarketable poultry left-overs (feathers, bones, trimmings, etc.) will be converted, through different types of enzymatic and chemical hydrolysis, into added value peptide hydrolyzates, leading to marketable food or ingredients with programmable nutritional properties.

These hydrolyzates will be characterized in order to certificate their safety, by assessing the absence of microbial (listeria, escherichia) as well as chemical (mycotoxins, biogenic amines, heavy metals) contaminants. Their content in free